MODULATION OF SYSTEMIC MEMORY T CELL TRAFFICKING

ABSTRACT OF THE INVENTION

Methods are provided to specifically modulate the trafficking of systemic memory T cells, particularly CD4+ T cells, without affecting naive T cells or intestinal memory T cells. It is shown that systemic memory T cells, which are characterized as $CD45Ra^-$, and integrin $\alpha4\beta7^-$, express high levels of CCR4. Ligands of CCR4, such as TARC or MDC, act as an adhesion trigger, wherein upon CCR4 binding, these cells undergo integrin-dependent arrest to the appropriate vascular receptor(s). This arrest acts to localize the cells at the target site. The methods of the invention manipulate this triggering, and CCR4 mediated chemotaxis, to affect the localization of T cells in targeted tissues. In one embodiment of the invention, the active agent is a CCR4 agonist, that acts to enhance T cell localization. In an alternative embodiment, the agent is an antagonist that blocks CCR4 biological activity. An advantage of the invention is the selectivity for systemic memory T cells, without affecting native T cells or intestinal memory T cells.